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On the road:

Eaton shows power system diagnostic benefits

Power delivery used to be good enough, but a lot of value has been added with advanced metering, power quality monitoring, surge protection, remote monitoring and more. Diagnostics and predictive controls help prevent any surprise downtime by estimating when system-level equipment may fail. Information integration allows smart decisions about power to be made in context of other systems and decisions. These are among points discussed in a U.S.-based touring tractor-trailer full of Eaton Corp. Power Distribution and Control Assembly technologies.

Control Engineering caught up with the Eaton trailer in Glendale Heights, IL, one of several Chicago-area stops, about half way through a 23 district, six-month 2007 tour. Specific stop details are available from Eaton representatives.

"PowerChain Management," as Eaton calls it, treats the power system as a "strategic, integrated asset through its lifecycle" enabling greater reliability, operating cost efficiencies, more efficient use of capital, enhanced safety, and risk mitigation.

Specific products onboard the trailer include metal enclosed front accessible switchgear, modular power centers, medium voltage starter family, low voltage motor control center, front-accessible switchgear, insulated case low voltage power and air circuit breakers, arc-resistant metal-clad switchgear, integration unit substations, soft starters, medium-voltage ac drives, and a variety of relays to protect against overloads, unbalance, faults, and other abnormal conditions.

Also touted was the Power Xpert meter, a highly navigable human-machine interface that detects fast transients (100,000 samples per cycle), monitors power events against acceptable performance information, and provides at-a-glance power health and Web based interaction for faster analysis.



A tractor-trailer full of Eaton power technologies stopped in Glendale Heights, IL, recently, one of several Chicago area stops on a six-month, U.S. 2007 tour.



Power Xpert (center) provides instant overview and analysis of what's going on in a power system, explains Kenneth J. Kopp, power management sales manager, Services & Systems Division, Eaton. The wheel below the screen speeds navigation through the system in a highly intuitive manner, he says, showing visitors on the Eaton PDCA Solutions Trailer Tour.



Alois Kuril (lower right), application engineer, power quality solutions operations, Eaton, set up a multi-unit modular uninterruptible power system (UPS) demonstration at the Eaton Glendale Heights facility. Separate from the trailer tour, Kuril showed *Control Engineering* how an innovative busbar and cable system in the scalable, modular Powerware BladeUPS helps avoid large expensive cabling he's holding, among other benefits. (UPS is in a separate photo, lower left.)

The accompanying power chain management Website is kind of fun, with a revolving onscreen "power wheel," that you sort of "catch" with your cursor. The soundtrack's not bad, either.

—Mark T. Hoske, editor in chief, *Control Engineering Weekly News*

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